

# **EXHIBIT J7**

## Functions of Lymphatic System

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 [mananatomy.com/basic-anatomy/functions-lymphatic-system](https://mananatomy.com/basic-anatomy/functions-lymphatic-system)

The lymphatic system performs the following important functions:

Lymph capillaries absorb and remove the large protein molecules and other particulate matter from the tissue spaces. Thus the cellular debris and foreign particles (dust particles inhaled into the lungs, bacteria and other microorganisms) are conveyed to the regional lymph nodes. Lymphatics (lacteals) help in transportation of fat from the gut.

Lymph nodes serve a number of functions:

1. They act as filters for the lymph which percolates slowly through the intricate network of its spaces. Thus the foreign particles are prevented from entering the bloodstream.
2. The foreign particles are engulfed by the macrophages in the sinuses.
3. Antigens are also trapped by the phagocytes.
4. The mature B-lymphocytes (plasma cells capable of producing antibodies) and mature T-lymphocytes are produced in the node.
5. Both the cellular and humoral immune responses are mounted against the antigen-laden phagocytes.
6. The circulating lymphocytes can pass back into the lymphatic channels within the node.
7. Humoral antibodies are freely produced by the lymph nodes.

Production (proliferation) and maturation of B- and T-lymphocytes is the main function of lymphoid tissue.